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GERMAN PHILOSOPHY AND POLITICS.[1]

THE spirit in which these three lectures are written is well indicated in what, at the end, Professor Dewey tells us is the instinctive ideal of American policy: "Promoting the efficacy of human intercourse irrespective of class, racial, geographical and national limits." It is a fair, candid, and generous presentation of the political philosophy of Kant, Fichte, and Hegel, yet independent in its attitude and not, on the whole, favorable in its judgment. We are shown that Kant, in divorcing Duty from the natural motives and consequences of action, and leaving particular duties indeterminate, virtually lent absolute authority to whatever commandments tradition or public law might impose; his morality, for all its theoretical autonomy, was servile in practise. "History proves what a dangerous thing it has been for men, when they try to impose their will upon other men, to think of themselves as special instruments and organs of Deity. The danger is equally great when an *a priori* Reason is substituted for a Divine Providence" (p. 43). "A justice which, irrespective of the determination of social well-being, proclaims itself an irresistible spiritual impulsion possessed of the force of a primitive passion, is nothing but a primitive passion clothed with a spiritual title so that it is protected from having to render an account of itself" (p. 56).

We are shown also how incredibly Fichte exalted the mission of the German people, leaving nothing to be added by the most vehement Pan-Germanism of to-day. The German nation was the only heir to the whole past, and the only seed of a healthy humanity in the future, so that if this special nationality was submerged, all history would perish with it, nay, God himself, who existed only when incarnate in mankind, would disappear. "As the Germans are the only truly religious people, they alone are truly capable of patriotism. Other peoples are products of external causes; they have no self-formed self. . . . The Germans alone of all existing

[1] "German Philosophy and Politics." John Dewey. New York: Henry Holt and Company. 1915. Pp. 132.

European nations are a pure race. They alone have preserved unalloyed the original divine deposit. Language is the expression of the national soul. And only the Germans have kept their native speech in its purity" (p. 100). "Since the State is an organ of divinity, patriotism is religion" (p. 99). "The premisses of the historic syllogism are plain. First, the German Luther who saved for mankind the principle of spiritual freedom against Latin externalism; then Kant and Fichte, who wrought out the principle into a final philosophy of science, morals, and the State; as a conclusion, the German nation organized in order to win the world to recognition of the principle, and thereby to establish the rule of freedom and science in humanity as a whole. . . . In the grosser sense of the words, Germany has not held that might makes right. But it has been instructed by a long line of philosophers that it is the business of ideal right to gather might to itself in order that it may cease to be merely ideal. The State represents exactly this incarnation of ideal law and right in effective might . . . . As past history is the record of the gradual realization in the Germanic State of the divine idea, future history must uphold and expand what has been accomplished. Diplomacy is the veiled display of law clothed with force in behalf of this realization, and war is its overt manifestation. That war demands self-sacrifice is but the more convincing proof of its profound morality. It is the final seal of devotion to the extension of the kingdom of the Absolute on earth" (pp. 87–89).

It was Hegel who formally transferred these divine attributes to the established State, Fichte having looked for them rather in the inner inspiration of the nation and its "true priest," the scholar. Hegel's scorn was infinite for any ideal not destined to be actualized and dominant. In his own words, quoted by Professor Dewey, "'the State is the rational in itself and for itself. Its substantial unity is an absolute end in itself. To it belongs supreme right in respect to individuals whose first duty is—just to be members of the State.' The State 'is the absolute reality, and the individual himself has objective existence, truth, and morality only in his capacity as a member of the State.' . . . The State is God on earth" (pp. 110–111). If great "world-heroes" venture to throw off established ideas or institutions, it is not on their own authority, but only because they draw, in Hegel's words, "their purposes and calling . . . from a concealed fount, from that inner spirit hidden beneath the surface which, striking the outer world as a shell, bursts it to pieces. . . . Such men may even treat other great and sacred interests inconsiderately. . . . So mighty a force must trample down many an innocent flower—crush to pieces many an object in its path" (pp. 111–112). Or, as Professor Dewey himself puts it, "history is the

movement, the march of God on earth through time. Only one nation at a time can be the latest and hence the fullest realization of God. . . . War is the signally visible occurrence of such a flight of the divine spirit in its onward movement. The idea that friendly intercourse among all the peoples of the earth is a legitimate aim of human effort is a basic contradiction to such a philosophy. War is explicit realization of 'dialectic,' of the negation by which the higher synthesis of reason is assured. It effectively displays the 'irony of the divine Idea.' . . . Particularly against the right of the 'present bearer of the world-spirit, the spirits of other nations are absolutely without right. The latter, just like the nations whose epochs have passed, count no longer in universal history.' "

This should prove a calming thought at the present time; for if Germany, as can hardly be doubted, is the " present bearer of the world-spirit," Belgium, Poland, and the United States are as safe from suffering the least wrong at German hands as is ancient Nineveh or Carthage. And as the author observes, "when a recent German writer argues that for Germany to surrender any territory which it has conquered during the present war would be sacrilegious, since it would be to refuse to acknowledge the workings of God in human history, he speaks quite in the Hegelian vein" (pp. 112–113).

How much more solid and reassuring is this healthy optimism than the old fanciful hope of the martyrs that they should be vindicated at the last day! The veritable last judgment, Hegel teaches us, is the course of history. To apportion justice the God of Hegel does not need to trouble his pure German conscience with Jesuitical casuistry or an impossible hedonistic calculus. His principle is as simple as it is rational: Never to vindicate the victim, always to vindicate the executioner. These genuine maxims of idealism, preented by Professor Dewey, as I have not here the space to do, in their original atmosphere and perspective, ought to dispose once for all of the stammerings of those English Hegelians who would persuade us that Germany has now proved false to the spirit of her great philosophers.

It was from Spinoza, I imagine, that Hegel caught this scorn of the finite, of the vainly desired, of the under dog. But in Spinoza this scorn had been purely naturalistic and contemplative: he saw the laws of nature, like a tempest, continually sweeping the old world clean and continually renewing it. This precarious and incidental hold on existence Spinoza attributed also to himself and to all mankind, even if the spectacle of that cruel and fertile necessity could at times fascinate the mind and lift its rapt sympathies above its own destiny. The sublimity and the irony of this pantheistic

sentiment are fully preserved in Hegel. Yet in him the transcendental theory of knowledge had intervened. Scorn of the finite could no longer be, as in Spinoza, impartial, courteous, and Oriental: sympathy with the infinite could no longer be liberating and humble. The self that was finite, and that perished, now passed for a mere figment of thought: the true and living self had killed it by thinking, being itself at once agitated and immortal. Humility was thus impossible; so was peace, so was the understanding that judges not. Hegel's scorn of the finite involved recasting it and explaining to it what it really was; this scorn was acrid, arrogant, eager, hounded by the lust of life, and swollen with the claim to victory. It was comparative, it lived by transition, and it was not pure scorn, but was mixed with annoyance. The thought that all that was real was rational did not reconcile Hegel to the world and separate him from it in the same even and thorough way in which Spinoza was reconciled and separated by the thought that all that was real was necessary. "Real" for Hegel, as for Plato, was a eulogistic term. The unreal existed also. The real had to swallow the unreal and digest it, so that this reality, this reason, was always hungry and sometimes dyspeptic. The rational idea was an outline, and the filling might be deficient or might be unsuitable. The concrete universal was the system or organic scheme of some whole, lending the parts their significance and "reality," but it was not identical with their total material being, with all their accidents. The rational was not coextensive with the real, in the ordinary sense of this word: it was identical only with the "truly" real, with that which is conceptual, deducible, and dialectical in what exists or is found. This real was therefore not improperly called ideal as well.

When Hegel sanctifies whatever is real and dominant, scorning all defeated demands, he therefore still preserves a distinction between the ideal and the fact. The State is divine, but any State on occasion may be false to itself and not properly the State. The individual and the foreigner have no rights of their own, but the State, to express its nature fully, must grant them some privileges. Hegel is a realist in ethics, a sort of speculative Bismarck; but he is idealistic enough to remain a moralist, since his reading of facts and forces distinguishes what is "real" and dynamic in them, which is good, from what is merely phenomenal, which is worthless. The tone of eulogy or disparagement which permeates his writing, though often willful and out of place, is thus not an absolute betrayal of his pantheism, as it would have been of Spinoza's. Hegel's world, while as a whole it perfectly fulfils its mission, in every part only strives to fulfil it, and even the total fulfilment exists only in the act of achieving it, in which aim and fact are still distinguishable. The

best of possible processes, he thinks, should be better at one end than at the other, though not, like most books, music, and systems of philosophy, better at the beginning than at the end. His romantic theology oscillates between two moral standards, neither of which it can abandon without giving up the ghost: the standard of the struggling will, which aches to emerge from one intolerable situation after another and therefore always conceives the future as better than the present, and the standard of the supposed divine judgment, which regards that endless agony as equally good and necessary throughout. The romantic principle, frankly expressed, would justify Schopenhauer and Nietzsche; the theological principle, if held with conviction, would lead back to the genuine pantheism of Spinoza and the Stoics.

Professor Dewey skillfully avoids complicating his survey with any account of the transcendental theory of knowledge; yet that after all is the foundation of everything in this philosophy, and until it is radically abandoned we shall hardly emerge from the moral quicksands to which it leads. Why is there in fact a clear difference between what is and what ought to be? Why is true freedom so very unlike the blessed consciousness of being willingly a slave? Why is the autonomy of conscience actually not romantic and anarchical? Why is there a limited authority in institutions? Why are compromise and partial cooperation practicable in society? Why is there sometimes a right to revolution? Why is there sometimes a duty of loyalty? Because the whole transcendental philosophy, if made ultimate, is false, and nothing but a selfish perspective hypostasized; because the will is absolute neither in the individual nor in humanity; because nature is not a product of the mind, but on the contrary there is an external world, ages prior to any *a priori* idea of it, which the mind recognizes and feeds upon: because there is a steady human nature within us, which our moods and passions may wrong, but can not annul; because there is no absolute imperative, but only the operation of instincts and interests more or less subject to discipline and mutual adjustment; and finally because life is a compromise, an incipient loose harmony between the passions of the soul and the forces of nature, forces which likewise generate and protect the souls of other creatures, endowing them with powers of expression and self-assertion comparable to our own and with aims not less sweet and worthy in their own eyes; so that the quick and honest mind can not but practise courtesy in the universe, exercising its will without vehemence or forced assurance, judging with serenity, and in everything discarding the word absolute as the most false and the most odious of words.

GEORGE SANTAYANA.

A NEW MONADOLOGY[1]

PROFESSOR VARISCO'S philosophy has been received with considerable interest by English idealists,[2] not unnaturally, since it is admittedly a development of English Neo-Hegelianism (p. 235)[3] and probably the most notable case in which that philosophy has been made a point of departure by a non-English speaking philosopher. Professor Varisco's philosophy has to be considered mainly with respect to the modifications which it introduces into the classic form of English idealism. His system is idealistic, one might almost say, by assumption; at any rate, he regards the idealist principle "no object without a subject" as sufficiently established by the reasons commonly urged in favor of it and he has nothing new to offer in that respect, nor does he devote any space in this volume to considering the objections which of late the realists have brought against it. To those familiar with English philosophy, therefore, it will be most natural to consider Professor Varisco's work in comparison with the type of idealism from which he sets out, though it ought not to be suggested that he has merely restated a familiar position. The variation is in fact considerable, as a summary of Professor Varisco's system will show, and the direction of his changes parallels in part at least that taken by some of the English critics of absolute idealism.

The element of English idealism to which Professor Varisco chiefly objects is the absolute, the inclusion of finite selves as moments in a single absolute experience and the reduction of phenomena to appearances. By making the phenomenal world a necessary manifestation of an experience already complete and perfect, the English absolute idealist has been led to deny reality to time, change, and spontaneity; Professor Varisco, on the other hand, regards these as irreducible phases of reality. He thus rejects idealistic monism and adopts in its place what he himself refers to correctly as a monadology, which no doubt owes much to Leibniz, though there are very important differences, and also suggests in

[1] "Know Thyself." Bernardino Varisco. Translated by Guglielmo Salvadori. London: George Allen and Unwin. 1915. Pp. xxix + 327.

[2] Cf. Professor A. E. Taylor's notice of Professor Varisco's earlier works "I problemi massimi," *Mind*, No. 77, Vol. XX, pages 135 ff., also "Idealism and Religion in Contemporary Italian Philosophy," by Angelo Crespi, *Mind*, No. 94, Vol. XXIV, pages 222 ff., and many references in Professor Bosanquet's "Principle of Individuality and Value."

[3] All references are to the English translation of "Know Thyself." Professor Varisco refers especially in this passage to Caird's "Hegel," but he has also a number of references to Mr. Bradley's "Appearance and Reality" and to Professor Royce's "The World and the Individual."

some respects the pluralism of Professor James Ward. "Nothing exists, which is not in relation with intelligence; or rather, to exist is simply to be in relation with intelligence. But the existence of intelligence consists in the existence of a multitude of consciousnesses; which are distinct as consciousnesses, but have all, in the end, one and the same content" (p. 234). "The unity of Being can be resolved into the mutual implication of subjects, into the fact that each is the unity of all" (p. 235). Professor Varisco therefore departs radically from the Bradleian theory that the finite is transformed and transmuted in the absolute. "To suppose that to be conscious consists in combining or amalgamating phenomena, so as to make them other than they would be outside their unity, is nonsense, both with regard to the particular subject, and, *a fortiori*, with regard to the universal Subject" (p. 232). "The reality consists of the phenomena, though none of these is possible outside their unity. . . . Consequently we deny that time is unreal, or illusory, though time, being a form of variation, has like every single phenomena [*sic*], no existence in itself" (p. 229, n.). Professor Varisco, it may be added, does not present his system as a completed philosophy. The most ultimate problem of all is left open; his system, so far as he has developed it, is regarded as consistent with an ultimate interpretation either pantheistic or theistic. The author makes no secret of his preference for the latter, but he is not yet prepared to offer proof for his preference.

It will be well now to give a brief summary of the system, following in general the order of the author's Introduction. A phenomenon is defined as "something, the existence of which is a being distinguished in the continuity of an experience or conscious life." Experience is at the same time reality and cognition, or, to be exact, this is true of the subconscious from which both consciousness (in the strict sense) and objects emerge. Within its experience the subject organizes itself by making distinctions, such as that between extended and unextended phenomena. Thus arises the subject (strictly so called) and by abstraction from this we conceive the object of physical science and common life. But all the objects which I can ever know are objects of my experience and therefore a part of myself in the broader sense; the mere fact that some objects are collocated in space outside my body does not make them less a part of me. This does not imply a limitation of my knowledge; on the contrary, it means that everything that exists is implicit in me. There is no essentially unknowable reality. The self, then, has for its content the content of the whole phenomenal world. Mostly, it is true, this content is subconscious, but consciousness

and self-consciousness develop from the primitive unity of the subconscious by making explicit that which before was only implicit. Hence the principle from which this volume takes its name, "Know Thyself."

The analysis of experience which ends in the distinction of subject and object is paralleled by a process which gives rise to the conviction that there are other subjects. As thinking develops the bi-polar distinction between the extended and the unextended, so acting develops that between activity and resistance; the consciousness of activity becomes clarified only as activity and resistance are distinguished. Now "resistance is necessarily apprehended as resembling activity: it is apprehended together with activity; it can be conscious at first only as a duplicate of activity." Thus the resistances become organized to form another subject.[4] Subjects are irreducibly distinct from one another, for no unextended phenomenon is ever common to two of them, but the action of one subject and that of another mutually condition and modify each other. They interfere, and this can be conceived only on the supposition that they belong to a single unity without, however, ceasing to be two. "The world is resolvable into a multitude of subjects, more or less developed, perhaps more or less capable of development, but none of which falls short of that character which constitutes a subject as such, *i. e.*, the character of being essentially related to all others." "As every subject is essentially implied by every other,

[4] Is there not a singular difference here between the deductions drawn regarding the object and other subjects? Both the object and the other subject appear in the arrangement of experience by successive distinctions. The subject, in the broad sense, is original and underivable, though the subject in the narrower sense originates by emerging from the subconscious as the correlate of the object. In the one case, however, it is an "arbitrary and meaningless hypothesis" to suppose the existence of bodies independent of any subject. Why, then, is it not equally arbitrary and meaningless to suppose that another subject is anything more than an arrangement of my experience set aside and distinguished just as the object is? The actual conclusion is significantly different: the subject comes to the conviction that there are other subjects. It is true that he comes to the conviction that there are objects also, but this is said to require interpretation as an organization of experience, whereas the belief in independent subjects requires no interpretation (p. xi). But why does it not? The truth appears to be that Professor Varisco's idealism is substantially Cartesian; it depends upon the alleged intuitive priority of the subjective. His philosophy is therefore more decidedly Berkeleian than English idealism has ever been and he no more proves the existence of other selves than Berkeley did. In general, is it not clear that these attempts to derive subject and object by an organization of experience, while they have a certain plausibility, do, in fact, beg the question? Professor Varisco agrees that the subconscious unity of the subject is presupposed. But are not the object and other subjects also taken for granted? At all events no one has ever succeeded in describing such a development without assuming both a subject and an environment.

the totality of the subjects constitutes a system of which each subject is the unity" (p. 31). "The phenomenal universe is unified or has its centre in each of the subjects of which it is the result. It has a polycentric structure; and such a structure is essential to it; its existence consists in having it" (p. xiii).

Professor Varisco's philosophy, then, involves the following fundamental propositions:[5] (1) There are certain original unities or experiences which as subconscious identify subject and object, reality and cognition, and which by organization distinguish them. (2) Everything real belongs to some or all of these unities. (3) Each unity is a principle of spontaneity; *i. e.*, it gives rise to undetermined variations, and since variation can never arise from purely logical (timeless) relations, change requires such spontaneity. (4) The primitive unities, though irreducible to each other and as separate experiences distinct from each other, are nevertheless members of a single "solidary" system. Each such experience implies every other. Because of this solidarity, or inclusion in a single system, a spontaneous variation in any unity gives rise to a corresponding determined variation in every other. The systematic relation is the ground of the causal relation, while the spontaneity of the original variation explains the temporal, extra-logical character of causality. Thus three types of relation are distinguished: the purely logical relations which are extra-temporal; causal relations which are necessary but temporal, and accidental relations (relations referred to the spontaneity of the unities) which are temporal and wholly undetermined.[6]

The mere recognition of these three types of relation is not all that Professor Varisco seeks; his philosophy aims to show that the various types "imply" each other and that all, therefore, are inevitable elements of his universe.[7] Since this is really a critical point in the book, a somewhat extended quotation is in order: "Every primitive unity is a unity; and therefore all the elements constituting it . . . will be solidary. That is to say, rationally necessary relations will arise between the variations, and in general between the elements of every primitive unity,—relations which, in so far as the elements are variations, acquire . . . the character of causal relations. Hence, not only do the spontaneities of different unities interfere with each other; but also the variations, spontaneous as well as determinate, of each unity interfere with each of the others. Whence it follows, that no fact occurs in which there is not at once,

[5] Cf. pages 162 *ff.*

[6] Cf. Chap. VI., sections 8 and 9.

[7] There is nothing else in Professor Varisco's book so puzzling as the meaning which he intends to attach to the word "imply."

as reciprocally co-essential, an indeterminate and a determinate factor. Spontaneity is intrinsically indeterminate. But the primitive unities are many; the variations of each primitive unity are also many. Whence a determinism which results from the connected multiplicity of the indeterminate factors.

"We seem to have before us a double dualism: the dualism causality-rationality, and the dualism indeterminism-determinism. From the considerations just mentioned it appears that those dualisms . . ., without vanishing, are reconciled, and indeed mutually imply each other (pp. 163 ff.).

But will any meaning of implication bear such a strain? To put the question bluntly, How can a spontaneous and intrinsically indeterminate event be *implied?* Professor Varisco's argument at this point is strangely hasty and inconclusive. He lays down the thesis that causality and accidentality imply each other necessarily (p. 155). As proof he then points out that a book, since it can be moved from place to place while remaining the same book, is not essentially in any particular place, and he adds, what is doubtless true enough as a matter of fact, that no one fails to distinguish between the accidental and the necessary. But wherein does the necessity imply the accident? In so far as the presence of the book in a given place is an accident, it is not implied by anything, at least not by anything within the system of concepts with reference to which its location is an accident; this is all that is meant by calling it an accident. On the other hand, if the location of the book is implied in another system of concepts, then from this point of view its location is not an accident. A copy of Hegel's "Logic" does not cease to be Hegel's "Logic" if I take it out of a bookcase and put it on a table; its subject-matter does not imply either location. But if I put it on the table in order that I may remember to take it with me, its location is as essential to it, from the point of view of my purpose to take it, as its subject-matter. Its location is implied by my probable forgetfulness, and is not accidental. One and the same fact may be either accidental or necessary according to the context of other facts in reference to which I conceive it, but this surely does not show that causality implies accidentality. Accidentality means merely the absence of implication for present purposes.

Professor Varisco seems to try to meet this difficulty by holding that the accidental is not implied so far as its individual nature is concerned; it is implied only that there are accidental events. "If the universe is in its essence the higher unity (the system) of spontaneous unities, it will consequently be essential to it to include accidental elements; none of the single accidental elements is essential, but nevertheless it is essential that there should be accidental ele-

ments'' (p. 175). It is clear, however, that this does not really meet the difficulty. Let it be admitted that the universe may be so conceived that spontaneous events are possible, just as it might conceivably be implied that after ten minutes no known law of nature would remain valid; the machine might conceivably be timed to run down and stop at a given moment. But in that case beyond the limits of ten minutes implication simply would not run; there would be no implication except for events within that time and it would be meaningless to say that the occurrence of spontaneous events was implied thereafter. Similarly it may be said that, if certain metaphysical hypotheses are made, the possibility of spontaneous events is implied, but this amounts to saying that events may occur which are not implied by any other events, and to try to say more reduces the hypothesis to the truism that if spontaneities occur, then they do occur. If, then, a philosopher tries to make room in his system for spontaneities, he must adopt a theory of knowledge by which unimplied facts may be taken as literally given; after they occurred they might have implications, but they would have wholly to lack logical derivation.

With this statement we arrive at the fundamental criticism of Professor Varisco's system. Between his metaphysical and his logical theories there is an obstinate discrepancy which he seeks in vain to eliminate. In his effort to revise English idealism he has rejected the absolute and has therefore substantially made over his metaphysics. On the other hand, the modifications which he has made in the logic of idealism are by no means adequate to such a reconstruction of its metaphysics. With all its faults, English idealism has been in the main consistent; it has been the systematic statement of a certain point of view both in logic and in metaphysics, and in consequence it is not open to the critic to rebuild it at one point and leave it standing at another. Whatever revisions are necessary must go straight through the structure from top to bottom.

It must indeed be agreed that Professor Varisco does not adopt the logic of absolute idealism in its entirety, but it is nevertheless true that by implication at least he leaves the main principles of that logic without substantial modification. His adherence to these principles is shown by the title of his book, ''Know Thyself,'' and he begins with this sentence: '' '*Intelligendo se, intelligit omnia alia.*' These words, applied to the individual subject, sum up the doctrine which I propose to set forth'' (p. v.). ''In substance, metaphysics is constructed by penetrating into the cognition which we have of ourselves; it has self-consciousness as its presupposition, though not a self-consciousness incapable of development, which indeed would not be self-consciousness at all. Know Thyself: this is the starting-

point, and must be the goal'' (p. 35). Hence the argument that the self includes all phenomena and is, subconsciously, the union of knowledge and reality. Whatever emerges into consciousness has been implicit in the subconscious. ''Anything new which we may know is new only in relation to explicit consciousness: implicitly we already knew it. The whole universe is implied by us: observation, reasoning, are simply means, by which some part of what is implicit becomes explicit'' (p. 97).[8] This becoming explicit takes place by means of judgments, and truth is the consistency of judgments. ''The ultimate test [of truth and falsity] is the possibility or impossibility of placing a judgment, a particular system of judgments, in the frame of the universal system'' (p. 90). Similarly error is said to be spontaneous non-conformity to the whole (p. xix). Now this is substantially a restatement of the consistency logic of absolute idealism. Aside from the reference to spontaneity and the use of the term subconscious it might have been written by Mr. Bradley or Professor Bosanquet.

From the point of view of the consistency logic the injunction Know Thyself means something. If experience is implicitly a whole and if this whole becomes explicit dialectically by the removal of contradictions, then it is reasonable to say that advancing knowledge is a progressive understanding of the self. For the self is precisely the form of that complete logical relatedness which realizes itself more and more in the dialectical process by which knowledge becomes more complete and systematic. This conception of implicit logical relatedness is precisely what leads the absolute idealist to make self-consciousness the central fact of his theory both of knowledge and reality. These inherent logical relationships are all that the idealist means when he speaks of the unity of the self. Professor Varisco, therefore, completely disrupts the theory when he introduces a-logical spontaneities into the self. He destroys the whole ground upon which idealism has argued that knowledge is a development from the implicit to the explicit. For, on the one hand, if elements of experience are created spontaneously by the self, how can they be said to be implicit? And, on the other hand, if they are already there, not new, but conditioned by the previous nature of the self, how can they be said to be spontaneous? The thread of logical continuity being cut, there is nothing left beyond the psychological truism that, whatever I may come to know, *I* shall know. Professor Varisco's idealism not only embodies the ego-centric predicament; it glories in it. It may be fairly questioned whether the ego-centric predicament is an adequate criticism of English idealism,

[8] Cf. also page xviii, 18.

but surely the ego-centric predicament, when it occurs, does not prove that one knows only oneself.

In this partial, but incomplete, revision of absolute idealism lies the key to Professor Varisco's puzzle about the implication of the accidental. His theory of knowledge, resting at bottom upon the consistency theory, requires him to show the various elements of his philosophy as logically involved in one another. From this point of view, all that co-exists, and is, therefore, not contradictory, must be mutually implied. Every judgment must rest in a complete system of judgments which, developed fully, will wholly determine it. But the spontaneous and a-logical is just the one thing that can never find a place in such a system. The problem set by Professor Varisco's monadology is one for which there is no solution in the theory of knowledge which he retains. The spontaneities require that knowledge shall not develop from within merely, shall not be the becoming explicit of what is already implicit, but shall be genuinely additive. If the theory of knowledge stands, Professor Varisco's subconscious must take on all the essential qualities of the absolute. If the spontaneous and a-logical stand, he will have to look with more sympathy upon that "false and absurd metaphysics," pluralism.

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A RÉSUMÉ OF EXPERIMENTS ON THE PROBLEM OF LIGHTING IN ITS RELATION TO THE EYE

THE work of which this paper is a brief outline was done under the auspices of the American Medical Association. The object of the work has been to compare the effect of different lighting conditions on the eye and to find the factors in a lighting situation which cause the eye to lose in efficiency and to experience discomfort.

Confronting the problem of the effect of different lighting conditions on the eye, it is obvious that the first step towards systematic work is to obtain some means of estimating effect. The prominent effects of bad lighting systems are loss of efficiency, temporary and progressive, and eye discomfort. Three classes of effect, however, may be investigated: (1) the effect on the general level or scale of efficiency for the fresh eye; (2) loss of efficiency as the result of a period of work; and (3) the tendency to produce discomfort. A description of tests designed especially for the investigation of these

effects has already appeared in print.[1] The test for the second effect, it may be mentioned, is not analytical in nature. Its results express an aggregate loss of function. Supplementary tests have been devised, therefore, by means of which the factors contributive to a given result may be separated out. A description of these tests is also included in the papers referred to above.

The following aspects of lighting sustain an important relation to the eye: the evenness of illumination, the diffuseness of light, the angle at which the light falls on the object viewed, the evenness of surface brightness, intensity, and quality. The first four of these factors, which may be grouped together as distribution factors, will be discussed briefly with reference to types of lighting now in common use.

The ideal condition with regard to the distribution factor is to have the field of vision uniformly illuminated with light well diffused and no extremes of surface brightness. When this condition is attained the illumination of the retina will shade off more or less gradually from center to periphery, which gradation is necessary for accurate and comfortable fixation and accommodation. In the proper illumination of a room by daylight, we have been able thus far to get the best conditions of distribution. Before it reaches our windows or skylights, daylight has been rendered widely diffuse by innumerable reflections; and the windows and skylights themselves acting as sources have a broad area and low intrinsic brilliancy, all of which features contribute towards giving the ideal conditions of distribution stated above. Of the systems of artificial lighting the best distribution effects, speaking in general terms, are given by the indirect systems, and the semi-indirect systems with a small direct component of light. In the indirect systems the

[1] Ferree, C. E. "Tests for the Efficiency of the Eye under Different Systems of Illumination and a Preliminary Study of the Causes of Discomfort," *Trans. Ill. Eng. Soc.* 1913, *8*, pp. 40–60; "Untersuchungsmethoden für die Leistungsfähigkeit des Auges bei verschiedenen Beleuchtungssystemen, und eine vorläufige Untersuchung über die Ursachen unangenehmer optischer Empfindungen," *Z. f. Sinnesphysiol.*, 1915, *49*, pp. 59–78; "The Efficiency of the Eye under Different Systems of Lighting," *Fourth Intern. Congress on School Hygiene*, Buffalo, 1913, *5*, pp. 351–364; "Ophthalmology," July, 1914, pp. 1–16; "Mind and Body," 1913, *20*, pp. 280–286, 345–353; "The Problem of Lighting in Its Relation to the Efficiency of the Eye," *Science*, July 17, 1914, N. S., *15*, pp. 84–91; Ferree, C. E. and Rand, G. "The Efficiency of the Eye under Different Conditions of Lighting: The Effect of Varying Distribution and Intensity," *Trans. Illum. Eng. Soc.*, August, 1915, *10*, pp. 407–447; "Further Experiments on the Efficiency of the Eye under Conditions of Lighting," *Trans. Ill. Eng. Soc.*, August, 1915, *15*, pp. 448–504. See also J. R. Cravath. "Some Experiments with the Ferree Test for Eye Fatigue," *Trans. Ill. Eng. Soc., 1914, 9*, pp. 1033–1047; also C. E. Ferree, "Discussion of Mr. Cravath's Paper, Some Experiments," etc., *ibid.*, pp. 1050–1059.

source is concealed from the eye and the light is thrown against the ceiling or some other diffusely reflecting surface in such a way that it suffers one or more reflections before it reaches the eye. In some of the respects most important to the eye, this and the semi-indirect systems with a small direct component of light give the best approximation of the distribution effects characteristic of daylight of any that have yet been devised. The direct lighting systems are designed to send the light directly to the plane of work. There is in general in the use of these systems a tendency to concentrate the light on the working plane or object viewed rather than to diffuse it, and to emphasize brightness extremes rather than to level them down. Too often, too, the eye is not properly shielded from the light source and frequently no attempt at all is made to do this. The semi-indirect systems are intended to represent a compromise between the direct and indirect systems. A part of the light is transmitted directly to the plane of work through the translucent reflector placed beneath the source of light, and a part is reflected to the ceiling. Thus, depending upon the density of the reflector, this type of system may vary between the totally direct and the totally indirect as extremes and share in the relative merits and demerits of each in proportion to its place in the scale. By giving better distribution effects this type of system is supposed also to be a concession to the welfare of the eye, but our tests show that the concession, at least for the reflectors of low and medium densities, is not so great as it is supposed to be. In fact, installed at the intensity of illumination ordinarily used or at an intensity great enough for all kinds of work, little advantage seems to be gained for the eye in this type of lighting with reflectors of low or medium densities; for with these intensities of light and densities of reflector, the brightness of the source has not been sufficiently reduced to give much relief to the suffering eye. Until this is done in home, office, and public lighting, we can not hope to get rid of eye strain with its complex train of physical and mental disturbances.

In the experimental work the following points are covered: the effect of varying the distribution factors on the ability of the eye to maintain its maximal efficiency for a period of work; the effect of varying the intensity of light with various groupings of distribution factors; and certain miscellaneous experiments relating to the hygienic employment of the eye. These latter experiments include the effect of varying the area and conversely the intrinsic brightness of the ceiling spots above the reflectors in an indirect system of lighting; the effect of varying the angle at which the light falls on the work in a given lighting situation; the effect of

using an opaque eye-shade with light and dark linings with each of the lighting installations used in the distribution and intensity series; the effect on the efficiency of the fixation muscles of a period of work under each of these installations; the effect of motion pictures on the eye at different distances from the projection screen; and a determination of the tendency of all the conditions of lighting employed to produce discomfort and to cause loss of efficiency.

The investigations are not abstract in character. All the variations obtained were gotten in actual concrete lighting situations by employing lighting installations in common use. In order that a correlation might be made between lighting conditions and the effect on the eye, the following specification of illumination effects was made in each case. (1) A determination was made of the average illumination of the room under each of the installations of lighting used. The room was laid out in 3-ft. squares and illumination measurements were made at 66 of the intersections of these squares and at the point of work. Readings were taken in a plane 122 cm. above the floor with the receiving test-plate of the illuminometer in the horizontal, the 45 deg., and the 90 deg. positions, measuring respectively the vertical, the horizontal, and the 45 deg. components of illumination. The 122 cm. plane was chosen because that was the height of the test object. In the work on the distribution series the illumination was made as nearly as possible equal at the point of work. (2) A determination was made in candle-power per sq. in. of the brightness of prominent objects in the room, such as the test surface; the reflectors for the semi-indirect installation; the reflectors and filament for the direct installation, etc.; the reading-page; the specular reflection from surfaces; etc. The brightness measurements were made by means of a Sharp-Millar illuminometer with the test-plate removed. The instrument was calibrated against a magnesium oxide surface obtained by depositing the oxide from the burning metal. By this method the reflecting surfaces were used as detached test-plates. The readings were converted into candle-power per sq. in. by the following formula:

$$\text{Brightness} = \frac{\text{Foot-candles}}{\pi \times 144}$$

(3) Photographs were made of the room from three positions under each system of illumination.

The tests for the effect on the eye were made at four representative positions in the room. The observers used were all under 26 years of age. A clinic record was made of the eyes of each observer. The following results were obtained.

1. Of the lighting factors that influence the welfare of the eye,

those we have grouped under the heading of distribution are apparently fundamental. They seem to be the most important we have yet to deal with in our search for the conditions that give us the minimum loss of efficiency and the maximum comfort in seeing. If, for example, the light is well distributed in the field of vision, and diffuse, and there are no extremes of surface brightness, our tests indicate that the eye, so far as the problem of lighting is concerned, is practically independent of intensity. That is, when the proper distribution effects are obtained, intensities high enough to give the maximum discrimination of detail may be employed without causing appreciable damage or discomfort to the eye.

2. For the kind of distribution effects given by the direct and semi-indirect reflectors of low or medium densities, our results show that unquestionably too much light is being used in ordinary work for the comfort and welfare of the eye.

3. The angle at which the light falls on the object viewed is an important factor, but not nearly so important, for example, as evenness of surface brightness in the field of vision. Extremes of surface brightness in the field of vision seem to be the most important cause of the eye's discomfort and loss of efficiency in lighting systems as we have them at the present time. In lighting from exposed sources it is not infrequent to find the brightest surface from 1,000,000 to 2,500,000 times as brilliant as the darkest; and from 300,000 to 600,000 times as brilliant as the reading-page. These extremes of brightness in the field of vision are, our tests show, very damaging to the eye.

4. Of the systems of artificial lighting tested thus far, the best results have been obtained for the indirect system, and the semi-indirect systems with reflectors having a high density. By means of these reflectors the light is well distributed in the field of vision and extremes of surface brilliancy are kept within the limits which the eyes are prepared to stand. Considerable loss of efficiency has been found to result from the use of direct reflectors and semi-indirect reflectors of low or medium density.

5. The loss of efficiency sustained by the eye under an unfavorable lighting situation is found to be muscular, not retinal. The retina has been found to lose little if any more in efficiency under one than under another of the lighting systems employed.

6. Loss of efficiency of the fixation muscles is, according to our tests, a very small part of the eye's aggregate loss in muscular efficiency as the result of work under an unfavorable lighting system. The chief loss seems to be sustained by the accommodation muscles or the muscles which adjust the lens of the eye.

7. Eye-shades are apparently not an adequate substitute for

lamp-shades for the protection of the eye from the sources of light. The best results are obtained by means of an opaque eye-shade with a light lining. The usual opaque eye-shades with dark linings, while they shield the eye from the source of light, do not by any means eliminate harmful brightness differences in the field of vision. They in fact create for the eye a very unnatural brightness relation; *i. e.*, they make the whole upper half of the field of vision dark in sharp contrast with the brightly lighted lower half. The direct effect of this is a strong brightness contrast (physiological) over the lower half of the field of vision which causes glare in surfaces which have no glare and increases the glare in surfaces in which glare is already present. Moreover, the unusual and strongly irregular character of the image formed on the retina probably also sets up warfare in the incentives given to the muscles which adjust the eye. That is, the upper half of the field of vision is dark and presents no detail. The effect of this is probably to exert a tendency to cause the muscular relaxation characteristic of the darkened field of vision. The lower half of the field of vision is light and filled with detail. The incentive here is for the best possible adjustment of the eye for the discrimination of detail in the objects viewed, while the rim of the shade, the sharply marked boundary between the light and dark halves of the field of vision and much nearer to the eye than the objects viewed, serves as a constant and consciously annoying distraction to fixation and accommodation. These complex and somewhat contradictory impulses given to the muscles of the eye might very well and doubtless do cause an excessive and unnatural loss of energy and efficiency in case of the prolonged adjustment of the eye needed for a period of work. Translucent shades when made sufficiently opaque to give the necessary reduction to the image of the source, darken too much the upper half of the field of vision and simulate thereby too much the effect given by the opaque shade with the dark lining to give the best results for efficient and comfortable seeing.

8. The observation of motion pictures for two or more hours causes the eye to lose heavily in efficiency. The loss decreases rather regularly with the increase of distance from the projection screen. It seems little if any greater, however, than the loss caused by an equal period of working under much of the artificial lighting now in actual use. In making these tests care was taken to choose a projection apparatus which gave a picture comparatively steady and free from flicker.

9. In all the conditions tested a rather close correlation is found

to obtain between the tendency of a given lighting condition to cause loss of efficiency and to produce discomfort.

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REVIEWS AND ABSTRACTS OF LITERATURE

Les Origines de Connaissance: R. TURRO. Paris: Felix Alcan. 1914. Pp. 269.

The present volume is the author's complete study of the origin of knowledge, portions of which appeared earlier. The main thesis which the author defends throughout the book is that knowledge, or the intellectual life, has an internal origin rather than an external origin, that it arises through some inner activity and not through the effect of external stimuli upon the sensorium. Thus he says[1] that "nothing is more incontestible than that external objects continuously act upon our organisms and our sensorial mechanism. But the intellectual life does not begin with this action; it begins at the very instant that one reacts upon the external sphere as the result of the trophic need with the resulting blind impulses to movement. Thereupon very complicated adaptations to this external sphere begin to develop and it is by virtue of these adaptations that we acquire the knowledge of reality, of causality, of space, etc." (p. 247). The explanation of this trophic need and the impulses to movement occupy the first 106 pages, the remaining 163 pages being given up to the discussion of the adaptations of the organism to external reality. According to Turro, the issue has been clouded by previous students who accepted instinct as a mysterious force by which the organism is capable of selecting from its environment those elements which shall satisfy the nutritive needs of the organism. Since the primordial fact for an organism is the experience which permits the entrance of food into his organism, the intellectual life begins with the functioning of this instinct in the presence of the appropriate external stimuli. This conception of instinct is due to the failure carefully to distinguish between what is innate and what is learned in an organism's behavior. From a number of experiments and observations the author concludes that the recognition of food is not due to an innate or instinctive consciousness, but is the result of learning. All that the organism has originally is an equipment of more or less coordinated movements which are closely associated with certain internal stimuli to be described later, but not with any external stimuli, such as the common notion of instinct implies. "One is not born with sight, hearing, taste, smell and touch; the most perfect sense begins by being very much like a microscope in the hands of a beginner who does not know how to control the light nor to adjust the instrument. . . . What one learns in this period is truly prodigious" (p. 216).

[1] Wherever quotations are used they indicate free translations of the author's ideas.

This overthrow of all preformed connections between external situations and responses as due to faulty observation or failure to distinguish between original and learned behavior is especially interesting in the light of recent reports of other investigators in this field. Note the work of Yerkes, Thorndike, and Watson, which tends to support the conception of very definite instinctive tendencies. Some quotations from the last-named author, however, bear close relation to Turro's contention. "In the drinking and eating responses of many animals we should expect to find a high degree of completeness even in the initial performance. Chickens, when left to develop naturally in the vicinity of water and food, usually find the water by accidentally pecking at the dish containing it. . . . When the intra-organic stimulation becomes sufficiently intense, which is brought about by keeping the chick from water until the third day, almost any form of extra-organic stimulation will set off the act of drinking." "No one could have predicted that a five-day-old chick, prevented from previous pecking, would start in with an accuracy no greater than that found in chicks 24 hours old. . . . From these experiments it seems safe to conclude that the enormous increase in the accuracy of pecking during the first three or four days . . . is due to the effects of practise as we ordinarily understand the term"[2] (and not to the maturation of the instinctive mechanism). Here we have statements quite similar to those of Turro by one who has by no means discarded the conception of instinctive mechanism.

Trophic need and the blind impulse Turro develops as follows: Every cell of the organism by its constant activity is consuming certain food products. These nutritive elements are in turn taken by the cell from the "internal *milieu*" to make up the loss. This *milieu* is of very complex composition and is made up of products of intestinal absorption, glandular secretion, and waste products from other organs. A certain equilibrium is maintained in this fluid by means of the "trophic reflex" (beginning at the cell) whose pathways are still unknown, but by which each organ or gland may be stimulated to contribute to the internal *milieu* those of the needed ingredients that it can supply. This is a purely biological process. But when the "internal *milieu*" is depleted through food extraction by the cells, and when the reflex stimulation of glands, etc., does not bring about the needed equilibrium in the *milieu, i. e.,* when the needs of the cells can not be satisfied, the trophic reflex continues active. Now, however, the excitation takes a higher path in the nervous system and thereby gives rise to the cry of distress and the sensation of hunger and certain other more or less random movements. The sensation of hunger is in consciousness the counterpart of the trophic reflex in the physiological level, *i. e.,* hunger expresses the trophic need of the organism. Just as the trophic reflex by its stimulation of the appropriate organ or gland supplies the particular food element required by the *milieu,* so the sensation of hunger is the demand for a particular food element, a selective tendency guiding the animal in his choice of food. As the needs of the organism change the hunger varies, *e. g.,* the appetite for fats in

[2] Watson, J. B., "Behavior," pages 140 ff.

changing to a very cold climate. Hunger may be analyzed into a particular hunger for salt, water, fats, carbohydrates, etc. This specialized hunger is not always apparent to consciousness, but can be best experienced in the case of lack of water, which is called thirst. There is no imagery needed by which the water may be recognized, but the impulse is an organic tropism. It appears independently of the sense organs and before they begin to function. Likewise it may be satisfied independently of them, as by intravenous injections of water. This thirst is to Turro the one primitive impulse. Other impulses are the elementary hungers just mentioned.

If the instinctive tendency which is supposed to enable one to select what is proper for him is discarded, how shall the selection of proper food substances by an animal be explained? The more or less random groping movements bring the organism into contact with external objects. When, for instance, it seizes the breast, it does not know that it contains a liquid which will nourish it,—it will seize any object that is near it in the same manner. It can be conscious of the effect of these movements in satisfying the trophic need only after the effect has been experienced, *i. e.*, after the nutritive elements have been incorporated into the *milieu*. Many repetitions of movements tend to associate them or bind them to certain nutritive effects. In the same way the effect, or satisfaction of the trophic need, is associated with certain sensations gustatory, tactual, olfactory, etc. After such association has been formed between organic effect and sensory experiences, the latter may serve as signs of certain internal effects. For instance, the red dress of the mother or the striking of the clock may be the sign of the coming satisfaction of hunger. The first differentiation among sense experiences results from attention to sense qualities which may serve as signs of certain satisfiers. All sensory discrimination is acquired for this purpose and is never innate. The judgment that the thing which satisfies my hunger is the same as that which now announces itself through the senses is the most primitive and elementary act of intelligence. It is called by Turro "trophic experience." Also the use of the sign for the thing signified is the most primitive act of induction and is the foundation for all logical induction. When an association has been established between a nutritive effect and a sensory experience, the reappearance of the trophic need and the hunger sensation will arouse an image of the sensory sign (association by contiguity). By means of the image, recognition of the object as answering a given need is possible. Just as the satisfaction of hunger is accompanied by certain sensorial experiences, so the appearance of food in the stomach is accompanied by secretion of digestive juices in proper quantity and quality. By association the sensory sign or its image may cause the flow of saliva and gastric juice in preparation for the digestion of the food signified. Much use is made by Turro in this connection of the experiments of Pavlow on the establishment of "conditional reflexes." The latter has shown that quite arbitrary sensory experiences, such as the ringing of a bell, may be made to serve as the stimulus for the flow of the digestive juices. They are conditioned upon the memory of previous experiences.

After accounting for the knowledge of internal effects and the differentiation of sensory impressions as signs of these effects, Turro develops the knowledge of reality, then of reality as external, and causality, all of which are built upon this primitive knowledge or "trophic experience." The discussion is too long to be treated adequately in this review, but brief statements of his conclusions will be given, as far as possible, in translation of the author's words.

One does not perceive aliments in the same way as external objects. In the former we consider the qualities of taste, odor, etc., as signs of an effect upon the organism. In the latter the same qualities are attributed to an external object. The former is the more primitive. How then does the latter develop from the former, *i. e.*, how does our knowledge of the external reality arise? "It is understood by the very nature of the trophic experience that the memory of a certain nutritive effect is associated with a totality of sensory experiences which are always the same. Each day one perceives a certain nutritive effect accompanied by the same visual, tactual, gustatory, etc., sensations. Hence it is not surprising that that which begins by provoking a special experience in each sense, quite distinct from all others, by repetition of the same series tends to bind them all together and that little by little one acquires the perceptive consciousness of individual objects to which these perceptions correspond" (p. 113). For example, the visual perception which corresponds to glass or to plate has a close connection with the auditory perception which corresponds to their respective sounds, and with that which corresponds to the temperature and tactile impressions which each object determines. There thus appears a complex perception, made up of all of these elements and there detaches itself in the intelligence as a unit, the knowledge of what is characteristic of glass and what is characteristic of plate, resulting from association of the perceptions belonging to the different senses (p. 114).

The memory of sensory experiences arises through association with the trophic need of the organism. Movements of the organism also associated with this need are capable of bringing about the appearance of the actual sense experiences. These sensory experiences announce the presence outside of the body, of that which is lacking in the internal *milieu*. The reality to which these sensory qualities belong then takes an independent external existence. The primary function of movement in acquiring a knowledge of externality is strongly emphasized by Turro.

In regard to external causality he concludes: "When we demand what is meant by the word cause, we note first that from the trophic experience arises the knowledge of the reality which is lacking in us, and from the motor experience arises the knowledge that the reality which is lacking is known through sensory signs; the real exterior is known also by these signs, when by means of movement we observe that the same thing which satisfies hunger determines these signs; and from that there formulates originally in the mind the knowledge of something which impresses the senses. This thing we call cause. All that the word signifies is a pure relation of reality with the senses; outside of this relation the word has no significance.

. . . The real is the possibility of determining trophic and sensorial effects, and nothing more . . . we know that the real exists as a thing because it nourishes us; we know that it is external because the motor experience makes us aware that it is that which impresses our senses" (pp. 241–42).

This review has emphasized especially Turro's discussion of the trophic experience as the beginning of intellectual life and the source of knowledge. His real contribution seems to lie here rather than in the elaboration of the more complex forms of knowledge. In a word, the origin of knowledge must not be sought in the first impressions of external objects upon the senses, but in the trophic sensibility, the consciousness of a nutritive need of the body which may be experienced and satisfied independently of the external senses. He considers introspection absolutely valueless in determining the origin of knowledge and relies wholly upon experimental results for the support of his conclusions. His attempt to solve a philosophical problem by drawing his material solely from the natural sciences is noteworthy.

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The Arya Samaj: An Account of its Origin, Doctrines, and Activities, with a Biographical Sketch of the Founder. LAJPAT RAI. London and New York: Longmans, Green and Company. Pp. xxvi + 305.

A moderate familiarity with current Hinduism suffices to make one aware of two native reform movements, the eclectic Brahmo Samaj, which is not far from Unitarian Christianity, and the Arya Samaj, which is held in more orthodox restraints of Vedic faith. Where such vague knowledge prevails the present exposition of the more conservative movement by one of its leaders will carry curious interest. However essentially Aryaism may be a return to early doctrines with the aid of modern methods, its origin was that of a new religion in the Hindu family, produced in a characteristically Indian way by a personal founder of originality and power. The life of Dayananda Saraswati reminds us at point after point of Buddha's, yet just because Buddha's is typical of his race. He was born in 1824, the son of a Brahmin public official in Kathiawar, north of Bombay, and was reared with stern devotion in the Shiva sect. Early he was started in those Sanskrit studies which equipped him for the scholarly work and controversy of his after life. At the age of fourteen, during a long fast and vigil, he had warded off the sleep to which even his zealous father succumbed, when he spied a mouse safely creeping over the idol and nibbling the offering. From that moment dates the enlightenment which his rebellious intellect thereafter increased. A sense of death came to him through bereavement; diverting interests were planned for him by his parents and a marriage arranged, but he fled from his home, assuming the yellow robe of holy poverty. He sat at the feet of learned men, but could subject his mind to none of them until he found the blind old Virjananda Saraswati, who gave his riotous impulses their true direction. Unlike Gotama, Dyananda never saw his father after his forthwandering. The religion that he organized was a pure and lofty Theism, based, he con-

tended, upon the infallible Vedas, but set round with ethics and sociology which have a very modern look. Rejecting such commentaries and other books as obscured the primitive revelation, he engaged hotly in polemics, appealing to the early psalmody as interpreted by him, yet he stood for the right of private judgment in every one and he opened the sacred writings to all classes. Bitterly assailing the corruptions of the popular religion, he offered himself as a champion of true Hinduism against Christianity and Islam. His followers have succeeded in avoiding so wide a rupture with orthodoxy as that of Buddha; Mahavira, the Jaina prophet, or Nānak, founder of the Sikhs. To the last-named religion Aryaism bears a resemblance which is enhanced by its strength in the Punjab region. By dissecting a corpse found in the jungle, Dayananda proved the falsity of his old medical books. Like Gotama, he tolerated the particular gods, but deposed them from their deity, or otherwise he explained away their plurality. Idolatry he banned, but he found room for a simple ritual after the old style, such as a daily *Homa,* or burning of ghi. The hereditary barriers of caste were broken down: outcaste and untouched might be raised up among the twice-born. Child marriages were forbidden and woman generally elevated, although criticism has been aroused by the provision for unions, in exceptional cases, outside of regular matrimony. In the circumstances of his death, Dayananda brings to mind John the Baptist.

Educationally the Arya Samaj has been aggressive. Its two leading colleges for men are the Anglo-Vedic, at Lahore, where liberal subjects are taught to about 1,000 students, many more being in the connected school, and the Gurukula college on the upper Ganges within sight of the Himalayas, where neophytes, under ascetic discipline, receive such a training almost as might have been given them in the ancient University of Taxila. While western sciences are not omitted, this is primarily a school of Sanskrit.

The Arya Samaj is organized and holds meetings quite after the model of free religious bodies in Europe or America; it has its young men's societies and it engages in philanthropic work such as famine relief and maintenance of asylums for the destitute. Its adherents now number about a quarter of a million. Like other churches the world over, it has been split by a schism, the differences lying in questions of vegetarianism and education. As a movement at once inconoclastic and patriotic, it has naturally been associated, in suspicion at least, with the Indian nationalist propaganda which was active a few years ago. Some of the leaders fell into disfavor with the British officials and it would seem (p. 161) that Mr. Rajpat Rai, the author of this book, suffered deportation. He takes much pains to show that the Samaj is not directly political and that it is not seditious in its principles.

In an attempt to analyze Aryaism religiously, we should realize that Mr. Rai is a zealous partisan, although a fair one, ready to quote from his adversaries. Hence it is only by reading between the lines that one could essay the interesting task of resolving Aryaism into its elements: (1) the true Vedic, (2) the later Hindu, (3) the part original with Dayananda or his teacher Virjananda, (4) that borrowed from other religions—

Islam, the Sikh possibly, but especially from the Christian. Dayananda's early life, it appears, was hardly touched by Western culture and his first discovery of truth was his own; this was suitable to combine with ideas later picked up, as a harmonious system. Though unversed in any European language, he later read the Gospels and he came close to their adherents as an opponent. The Samaj is self-consciously active as an antidote to Christianity, the spread of which Mr. Rai discusses with concern, although he contends that it will not conquer India. Aryaism may thus be compared to Neo-Platonism, or perhaps better to the sublimated pagan revival under Julian. In a social way the Samaj may be conceded to be doing much good, and it is helping to shame Hinduism out of the prevalent superstitions. Western critics, unlike Lajpat Rai, will be prone to regard its insistence upon Vedic infallibility as a defect fatal to its present constitution, for a skeptical, educational movement can hardly abide long under such a dogma.

Viewed prophetically, the Arya Samaj is significant chiefly as one of the responses made by the eastern mind to western stimulus, since that is the method by which we must look for the future of the cultured Orient to work itself out. However impossible may be an essential definition of Christianity, its history shows that it is a fertilizing principle, fruitful in fresh indigenous growths. Men are coming better to recognize that its promotion among such people as the literati of India should be less an insistence upon occidental forms than a supplying with basic data for them to interpret according to their own deep experience.

Mr. Lajpat Rai has made a very readable book. He apologizes for it as being much in the nature of a compilation and excuses hasty construction on the ground that it was planned and executed within eight weeks, in London. Defects of style do not, however, obtrude themselves; his language is exceptionally clear and pleasant. This, indeed, is a gratuity, for not the form, but the matter counts in such a book, and assuredly it is informing. It was written to supply a need for a general account of the Arya Samaj in English, although the author is able to append a useful bibliography of books and other writings in this language. The preface is by Professor Sidney Webb, of the University of London.

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JOURNALS AND NEW BOOKS

THE INTERNATIONAL JOURNAL OF ETHICS. July, 1915. *Perpetual Peace and the Doctrine of Neutrality* (pp. 431–447): J. C. MEREDITH. – Neutrality is not necessarily a dignified or meritorious position. Only when "some great powers regard themselves as bound, on their own initiative, to defend and uphold the sacred rights of mankind, the first step will have been taken on the long road that must eventually lead to the establishment of a more ambitious and adequate scheme for making war a continually averted calamity." *What Is Realpolitik?* (pp. 448–468): H. C. EMERY. – The European conflict is construed as a conflict between

political realism and political idealism with an interpretation of political realism as not sordid, but based on a desire to satisfy certain concrete needs. It is also maintained that the choice of objects to be attained present rival claims not easily adjusted from the point of view of relative spiritual values. *Legal Theories and Social Science* (pp. 469–494): MORRIS R. COHEN. – A criticism of the three following dogmas: the theory of the division of power is the condition of free government; the judge's business is to declare the law, never to make or change it; the theory of natural rights. *Betting and Insurance* (pp. 494–497): A. J. DORWARD. – A demarcation of essential differences of events, methods, and ends involved in the two processes. *Private Property and Social Justice* (pp. 498–513): W. K. WRIGHT. – Instead of collective ownership, the moral value of property implies that all individual adult citizens should become owners of and find investment for private property. *Marriage and Parenthood* (pp. 514–517): ELSIE CLEWS PARSONS. – "Until marriage and parenthood get into the social consciousness as distinct and separable facts, our ethics—and our conduct—will be uncertain, confused, and tragical beyond need." *Ethics and the Struggle for Existence* (pp. 518–539): J. C. FLÜGEL. – The struggle for existence is tending to cease and it is both desirable and within human power to hasten its cessation. *Book Reviews:* Rashdall, *Is Conscience an Emotion?* FRANK CHAPMAN SHARP. H. W. Laidler, *Boycotts and the Labor Struggle:* W. H. HAMILTON. Eucken, *Life's Basis and Life's Ideal, Present-day Ethics in Their Relation to the Spiritual Life, The Problems of Human Life, Can We Still be Christians?* S. H. MELLONE. A. W. Benn, *The Greek Philosophers:* G. A. JOHNSTON. H. M. Kallen, *William James and Henri Bergson:* A. W. MOORE. *Religio Doctoris:* J. KANTOR. *Shorter Notices of Recent Books.*

THE JOURNAL OF ABNORMAL PSYCHOLOGY. June–July, 1915. *Anger as a Primary Emotion, and the Application of Freudian Mechanisms to Its Phenomena* (pp. 81–87): G. STANLEY HALL. – The movement inaugurated by Freud opens a far larger field than that of sex. The point is made by an illustration of anger, although "fear, sympathy, or the gregarious or social instincts would still better illustrate." The chief merit of the Freudians is found in the studies of the unconscious, of the "feelings which introspection can confessedly never tell much about, and concerning which our text-books in psychology still say so little." *Necessity of Metaphysics* (pp. 88–99): JAMES J. PUTNAM. – Philosophy and metaphysics deal more distinctively with essential function—real existence, —while natural science and the genetic psychology deal rather with appearances and with structure. Both are needed in investigation. Function logically precedes structure as no one can doubt who observes his own experience. "The psychologist should sympathize deeply with the anatomist and the physiologist and the student of cerebral pathology, but equally deeply with the philosopher and the metaphysician who study the implications, present although hidden, that point to the bonds between the individual and the universe." *Aspects of Dream Life* (pp. 100–119): THE CONTRIBUTION OF A WOMAN. – A layman gives a few of the five thou-

sand dreams which she has recalled and written down during three years. *Remarks Upon Dr. Coriat's Paper "Stammering as a Psychoneurosis"; A Criticism* (pp. 120–137): MEYER SOLOMON.—Dr. Coriat does not give the slightest proof nor testimony in support of the ideas in his paper. Its conclusions are impossible. It implies that Dr. Coriat accepts the Freudian theories *en masse*. Reference is made to former articles in which the critic has discussed psychoanalysis. This paper attempts to clear the field of the misunderstandings in interpretations showing how everything depends upon what one means by "sexuality" or "sexual impulse." The Freudian theory in general is attacked. *Abstracts: The Psychic Factor in Mental Disorder:* M. A. HARRINGTON. *A Study of Sexual Tendencies in Monkeys and Baboons:* G. V. HAMILTON. *An Experimental Study of Stuttering:* J. M. FLETCHER. *Reviews:* A. F. Shand, *Foundations of Character:* ERNEST JONES. William McDougall, *An Introduction to Social Psychology:* M. SOLOMON. *Books Received.*

Durkheim, Emile. The Elementary Forms of the Religious Life: A Study in Religious Sociology. Tr. by Joseph Ward Swain. New York: The Macmillan Company; London: George Allen and Unwin. 1915. Pp. xi + 456.

NOTES AND NEWS

JOHN ANGUS MACVANNEL

John Angus MacVannel, Ph.D., professor of the philosophy of education on the Teachers College Foundation in Columbia University, died at his home at St. Mary's, Ontario, on November 10, 1915, in the forty-fifth year of his age.

Professor MacVannel received his formal academic training in Canada and was graduated from the University of Toronto with the degree of Bachelor of Arts in 1893. He received the degree of Master of Arts from the same University in the following year. He then came to Columbia University to pursue advanced studies in philosophy and in educational theory, and in 1898 received the degree of Doctor of Philosophy, his dissertation being upon the subject, "Hegel's Doctrine of the Will." While a graduate student he also served as assistant in philosophy and education from 1896 to 1898, and as lecturer in philosophy in 1901–02, when the staff of the department had to be quickly reorganized owing to the election of the senior professor of philosophy to be President of the University. In 1902 Dr. MacVannel was appointed instructor in the philosophy of education on the Teachers College Foundation, and was promoted to the full professorship of that subject in 1906.

Professor MacVannel was an excellent teacher, and while his early death and the years of illness which preceded it made it impossible for him to fulfil the promise of his earlier years, he had given every evidence of high competence as a critical and productive scholar. His writing, while neither frequent nor voluminous, was marked by fine literary quality, straightforward thinking, and genuine philosophical scholarship. In

the lecture-room he had great facility and skill in making difficult points clear and in reducing a keenly disputed question to its lowest terms of simplicity. His gentleness and kindliness of character won him the warm regard and the confidence of all those who were associated with him. His sadly early death brings to an end a career of marked usefulness and promise both as university teacher and as productive scholar in the field of historical and critical philosophy.

COLUMBIA UNIVERSITY. NICHOLAS MURRAY BUTLER.

The fifteenth annual meeting of the American Philosophical Association will be held at Philadelphia, Pa., on December 28, 29, and 30, 1915, in acceptance of the invitation of the Philosophical Department of the University of Pennsylvania. The sessions will begin on Tuesday afternoon. The meeting will have some special features, which will be announced when arrangements are completed.

The Association meets alone this year, and there will be no joint discussion, and no special topic as at recent meetings. Members of the Association are requested to send to the Secretary, not later than December 7, the titles of papers which they wish to read, and also multiple copies of abstracts in order that discussions may be arranged. Papers are limited to twenty minutes in reading, and abstracts to four hundred words. All titles sent to the Secretary are, together with the abstracts, submitted to the Executive Committee, that it may make up the programme.

Membership blanks will be furnished on request, and should be so filled out as to give full information regarding the candidate's qualifications. They should be sent to the Secretary by December 23.

In order that various details concerning the meeting may be arranged, members are urged to inform the Secretary if it is their intention to be present. At a later date information will be given concerning trains, hotels, and other accommodations.

(Signed) E. G. SPAULDING,
Secretary.

PRINCETON, N. J.

The twenty-fourth annual meeting of the American Psychological Association will occur on December 28, 29, and 30 at the University of Chicago. The annual dinner-smoker with the address of the president, Professor John B. Watson, on "The Place of the Conditioned-Reflex in Psychology," will occur at the Quadrangle Club, Wednesday evening, December 29. A special feature of the program will be a discussion of the relations of psychology to the subjects of philosophy, of science, and of pedagogy in the curriculum. The local member of the executive committee, in charge of the meetings, is Professor H. A. Carr, of the University of Chicago. Communications which concern the program may be addressed to the secretary, Professor R. M. Ogden, at Lawrence, Kansas.

Dr. Savilla Alice Elkus, formerly instructor in philosophy at Vassar College, has accepted the position of assistant professor of philosophy at Smith College.